U.S. Department of the Interior
Bureau of Land Management
White River Field Office
73544 Hwy 64
Meeker, CO 81641

ENVIRONMENTAL ASSESSMENT

NUMBER: CO-110-2005-068-EA

CASEFILE/PROJECT NUMBER (optional): COD 052265
COD 053981
COD 051174

PROJECT NAME: Application Permit to Drill (APD) for three wells

LEGAL DESCRIPTION: T 2N R103W sec 15
T 2N R103W sec 22

APPLICANT: Chevron Production Company

ISSUES AND CONCERNS (optional):

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:

Background/Introduction: Onsite was conducted on November 4, 2004.

Proposed Action: The applicant is proposing to drill 3 new wells in the Rangely Weber Sand Unit. The access roads will be upgraded and maintained as necessary to prevent soil erosion, and accommodate year round traffic. The White River Resource Area Field Manager shall be notified 24 hours in advance before any construction begins on the proposed location sites. Clean up and rehabilitation operations will begin as soon as the well is completed and should be finished 60-90 days after well completion.

Well # Hagood M.C.A. 14X: the proposed access road is 528 ft long by 30 ft wide (.36 acres). The proposed location is 285ft X 400ft (2.62 acres). The proposed pipeline disturbance is 1500ft X 40ft (1.38 acres). Total disturbance anticipated for this proposed location is 4.36 acres.

Well # M.B. Larson A 4X: the proposed access road is 100' long by 30' wide (.07 acres). The proposed location is 285' X 400' (2.62 acres). The proposed pipeline disturbance is 607' X 40' (.56 acres). Total disturbance anticipated for this proposed location is 3.25 acres.

Well # Beezley 3X22: the proposed access road is 300' long by 30' wide (.21 acres). The proposed location is 285' X 400' (2.62 acres). The proposed pipeline disturbance is 150' X 40' (.14 acres). Total disturbance anticipated for this proposed location is 2.97 acres.

Total disturbance for the project will be 10.58 acres. Existing roads and the well location are shown on topographic map, included in the surface use plan. Planned access roads and existing wells in the area are shown on topographic Map B included in the surface use plan.

Presently, ancillary facilities are not planned for now or in the near future. Fences are not present on the property; therefore installing gates, cattle guards, or cutting fences will not be required. Water used for drilling the wells will be from an existing injection line on location. Fuel gas for drilling will be by a temporary surface pipeline from the existing residue gas fuel line.

A reserve pit will be constructed approximately 8' deep and at least one half of this depth shall be below the surface of the existing ground. The reserve pit will be used as a storage area during the drilling of this well to store non-flammable materials such as cuttings, salts, drilling fluids, chemicals, produced fluids, etc. The pits will be fenced with 32" to 48" high woven wire to protect wildlife and domestic animals. After the completion rig finishes, cuttings and drilling fluids will be buried in the reserve pit and the surface contoured to conform to surrounding terrain. If it becomes necessary to keep the pit, it will remain fenced with woven wire until covered. Overhead flagging will be installed over pits should oil accumulate or be discharged. Trash will be confined in a covered container and hauled to an approved landfill. A portable toilet will be supplied for human waste.

The White River resource Field Manager will be notified at least 24 hours prior to commencing reclamation work. At that time, when all drilling and production activities have been completed, the location site will be reshaped to the original contour. Distribute topsoil, disk and seed all disturbed areas outside the work area according to the seed mixture chart. Any drainage re-routed during the construction activities shall be restored to their original line of flow as near as possible. Prior to burial of cutting and mud, any liquid oil or water will be trucked to the recovery plant. The disturbed areas not needed for well operation and access roads will be revegetated and rehabilitated per the remainder of the season. All disturbed surfaces will be seeded with the following seed mixture:

Crested Wheatgrass (Nordan)	3 Lbs. PLS/acre
Siberian Wheatgrass (P27)	4 Lbs. PLS/acre
Russian Wildrye (Vinall)	2 Lbs. PLS/acre

The seedbed will be prepared by disking following the natural contour. Drill seed on contour at a depth no greater than ½ inch. In areas that cannot be drilled, broadcast at double the seeding rate and harrow seed into the soil. Certified seed will be used. Fall seeding must be completed after September 1, and prior to prolonged ground frost. Perennial vegetation must be established. Additional work will be required in case of seeding failures, etc.

For final reclamation, when any of the wells are abandoned, the locations will be restored to the original contours. During reclamation of the site, fill material will be pushed into the cuts and up over the back slope. Depressions will not be left that will trap water or form ponds. Topsoil will be distributed evenly over the location, and seeded according to the seed mixture chart. The

access road and location will be disked prior to seeding. Perennial vegetation must be established.

During operations , if discoveries of any cultural remains, monuments or sites, or any object of antiquity subject to the Antiquity's Act of June, 1906 (34Stat. 225; 16 U.S.C. Secs. 431-433), the Archeological Resources Protection Act of 1979 (PL 96-95), and 43 CFR, Part 3, operations will immediately cease and will be reported directly to the Area Manager. In cases where salvage excavation is necessary, the cost of such excavation shall be borne by the operator, unless otherwise agreed upon.

Approval shall be requested to continue operations should the surface become saturated to a depth of three (3) inches. Turnouts will not be required.

The well cellar will be covered with steel grating and no hazards will exist for livestock or wildlife.

All permanent facilities placed on the location will be painted Carlsbad Canyon Brown (Fuller Brand Colorant 31293 or equivalent) to blend with the natural environment.

No Action Alternative: In the no-action alternative the wells and flowlines would not be permitted; there would be no new disturbance.

ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD: none

NEED FOR THE ACTION: To respond to the request by applicant to exercise lease rights and develop hydrocarbon reserves.

PLAN CONFORMANCE REVIEW: The Proposed Action is subject to and has been reviewed for conformance with the following plan (43 CFR 1610.5, BLM 1617.3):

Name of Plan: White River Record of Decision and Approved Resource Management Plan (ROD/RMP).

Date Approved: July 1, 1997

Decision Number/Page: Pages 2-49 thru 2-52

Decision Language: "To make public lands available for the siting of public and private facilities through the issuance of applicable land use authorizations, in a manner that provides for reasonable protection of other resource values."

AFFECTED ENVIRONMENT / ENVIRONMENTAL CONSEQUENCES / MITIGATION MEASURES:

STANDARDS FOR PUBLIC LAND HEALTH: In January 1997, Colorado Bureau of Land Management (BLM) approved the Standards for Public Land Health. These standards cover upland soils, riparian systems, plant and animal communities, threatened and endangered species, and water quality. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands. Because a standard exists for these five categories, a finding must be made for each of them in an environmental analysis. These findings are located in specific elements listed below:

CRITICAL ELEMENTS

AIR QUALITY

Affected Environment: The project area is located 25 miles south of a Class II Prevention of Significant Deterioration (PSD) air quality area. No Class I PSD areas are located within an 80-mile radius of the project area. The principal air quality parameter likely to be affected by construction of the proposed action is the inhalable particulate level (PM_{10} - particles ten microns or less in diameter) associated with fugitive dust. Although no monitoring data are available for the survey area, it can be surmised that the air quality is good because the Colorado Air Pollution Control Division (APCD) estimates the maximum PM_{10} levels (24-hour average) in rural portions of western Colorado to be less than 50 micrograms per cubic meter. This estimate is well below the National Ambient Air Quality Standard (NAAQS) for PM_{10} (24-hour average) of 150 $\mu g/m^3$.

Environmental Consequences of the Proposed Action: The proposed action would result in short term, local impacts to air quality during and after construction, due to dust being blown into the air. However, airborne particulate matter should not exceed Colorado air quality standards on an hourly or daily basis.

Environmental Consequences of the No Action Alternative: Impacts are not anticipated from the no-action alternative.

Mitigation: None.

CULTURAL RESOURCES

Affected Environment: Beezley #3X22 well pad, access and well tie pipelines: The proposed well pad, access road and well tie pipelines are in an area that is covered by an inventory (Larralde, 1981) and is covered by an agreement with the Colorado SHPO. There are no known cultural resources in the project area.

MB Larson A #4X well pad, access road and well tie pipelines: The proposed well pad, access road and well tie pipelines are in an area that is covered by an inventory (Larralde, 1981) and is covered by an agreement with the Colorado SHPO. There are no known cultural resources in the project area.

Hagood M.C. A 14X well pad, access road and well tie pipelines: The proposed well pad, access road and well tie pipelines are in an area that is covered by an inventory (Larralde, 1981) and agreement with the Colorado SHPO. There are no known cultural resources in the project area.

Environmental Consequences of the Proposed Action: The proposed action will not impact any known cultural resources.

Environmental Consequences of the No Action Alternative: There would be no new impacts to cultural resources under the No Action Alternative.

Mitigation: For the proposed action: 1. The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:

- whether the materials appear eligible for the National Register of Historic Places
- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary)
- a timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

2. Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the AO, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.

INVASIVE, NON-NATIVE SPECIES

Affected Environment: The proposed action is located within Alkaline Slope and Clayey Saltdesert ecological sites, which are dominated by salt tolerant vegetation. The dominate plant community for these sites consist of greasewood, and various saltbrushes such as shadscale, Gardner saltbrush, mat saltbush, and fourwing saltbrush. The understory of these shrubs is

dominated by western wheatgrass, Colorado wildrye, and squirreltail. Cheatgrass and halogeton are undesirable, invasive, and alien plant species that are present within the locality of the proposed action. Both of these species are highly adapted to disturbed soils.

The soils within the project area are principally a Billings Silty Clay Loam (Alkaline Slope ecological site) and Chipeta Silty Clay Loam (Clayey Saltdesert ecological site). These soil types have a high clay content that is moderate to highly erosive and receives low precipitation with rapid runoff, thus limiting forage production and hampering re-vegetation efforts.

Drought conditions are very prevalent within the Coal Oil Basin area, which has hampered the successful establishment of reclaimed plant species of other projects in this area. Therefore, undesirable and invasive annual plant species (i.e. halogeton, cheatgrass) have become dominate in portions of previously disturbed areas which provide little resource value and hinder efforts to meet Public Land Health Standards.

Environmental Consequences of the Proposed Action: Weed species found in the area are effectively controlled by establishment of seeded species within disturbed areas. The proposed seed mix, which includes non-native species, is recommended because its associated plant species are highly adapted to this site (heavy clay soils) and offer the greatest opportunity to establish vegetation cover and the resultant soil stabilization; thereby providing a competitive interaction between seeded species and noxious/invasive weeds.

There is always the opportunity for other noxious weed species to be transported onto the proposed action locations by construction and/or support equipment

Prompt reclamation with successful establishment would prevent cheatgrass and halogeton from establishing on disturbed sites. If other noxious weeds were to invade the site, prompt control would prevent movement to the adjacent plant communities.

Environmental Consequences of the No Action Alternative: None

Mitigation: Use standard seed mix #1 for reclamation. The applicant will be responsible for eradicating cheatgrass, noxious weeds, and/or problem weeds should they occur and/or increase in density as a result of the proposed action. The applicant will use materials and methods as outlined in the RMP and/or authorized in advance by the White River Field Office Manager. Application of herbicides must be under field supervision of an EPA certified pesticide applicator. Herbicides must be registered by the EPA and application proposals must be approved by the BLM.

Seed Mix #	Species (Variety)	Lbs PLS/ Acre	Range sites
1	Siberian wheatgrass (P27) Russian wildrye (Bozoisky) Crested wheatgrass (Hycrest)	3 2 3	Alkaline Uplands, Badlands, Clayey 7"-9", Clayey Salt Desert, Cold Desert Breaks, Cold Desert Overflow, Gravelly 7"-9", Limey Cold Desert, Loamy 7"-9", Loamy Cold Desert, Loamy Salt Desert, Saline Lowland, Salt Desert Breaks, Salt Flats, Salt Meadow Sands 7"-9", Sandy 7"-9", Sandy Cold Desert, Sandy Salt Desert, Shale 7"-9", Shale/Sands

Seed Mix #	Species (Variety)	Lbs PLS/ Acre	Range sites
			Complex, Shallow Loamy, Shallow Sandy, Shallow Slopes, Silty Salt Desert, Silty Swale, Steep Slopes

MIGRATORY BIRDS

Affected Environment: The project area is encompassed by arid salt desert shrublands consisting principally of shadscale, matt and Gardner saltbush, rabbitbrush and snakeweed. Herbaceous groundcover is comprised mainly of native grasses. These salt desert communities typically support several migratory bird species which fulfill nesting functions between late-May through mid-July including vesper and sage sparrow, western meadowlark, sage thrasher and horned lark.

Environmental Consequences of the Proposed Action: Earthwork associated with Hagood MCA 14X is expected to be completed in advance of the breeding season and would have no potential to interfere materially with nests. Drilling operations would likely extend into the nesting season but since nest initiation would have been conducted in the face of ongoing pad development, continuation of development activities, confined to the pad, would not be expected to disrupt nesting outcomes (particularly since nest site tenacity increases through the nesting season). Any involvement with suitable nest habitat would be minor, as these community types comprise about 10,000 acres in Rangely Oil Field. Earthwork associated with MB Larsen A4X and Beezley 3X22 is scheduled to begin after 15 July, outside of the nesting season for migratory birds.

Environmental Consequences of the No Action Alternative: There would be no affect on migratory birds or their habitats under the no action alternative.

Mitigation: To avoid negative impacts on nesting migratory birds, construction will take place prior to 1 April (in the case of Hagood MCA 14X) or after 15 July (in the case of MB Larsen A4X and Beezley 3X22).

THREATENED, ENDANGERED, AND SENSITIVE ANIMAL SPECIES (includes a finding on Standard 4)

Affected Environment: The project area is broadly encompassed by white-tailed prairie dog (WTPD) habitat. Field visits during February indicate evidence of occupation by prairie dogs at all proposed pad sites (Table 1). Subsurface disturbance along the proposed flowline would affect approximately 40 burrows (single-entrance and mounds, Table 2). All other burrows associated with the flowline would have minimal surface disturbance related to right-of-way clearing.

Table 1 WTPD habitat (mounds and single entrance burrows) affected by the construction of proposed well pads in Rangely Oil Field.

Well Site	Total acres disturbed	Mounds	Single-entrance
Hagood MCA 14X	2.62	4	22
MB Larsen A4X	2.62	5	18
Beezley 3X22	2.62	11	35
Total	**7.86**	**20**	**75**

Table 2 WTPD habitat (mounds and single entrance burrows) affected by the construction of flowlines and access roads associated with proposed well pads in Rangely Oil Field.

Flowline Site	Total acres disturbed	Mounds	Single-entrance
Hagood MCA 14X	1.38	0	10
Access road	.36	0	0
MB Larsen A4X	.56	0	13
Access road	.07	0	1
Beezley 3X22	.14	3	8
Access road	.21	1	2
Total	**2.72**	**4**	**34**

Prairie dogs and their burrow systems are important components of burrowing owl habitat, as well as potential habitat for reintroduced populations of black-footed ferret. Burrowing owls, a State threatened species are uncommon in this Resource Area. These birds return to occupy a maintained burrow system in early April and begin nesting soon after. Most birds have left the area by September. While burrowing owls have been documented in Rangely Oil Field, no burrowing owl nesting activity has been recorded near the six proposed well sites or flowline corridors.

Under the auspices of a non-essential, experimental population rule, black-footed ferrets have been released annually in Coyote Basin (eight miles southwest) and Wolf Creek (13 miles northeast) of Rangely Oil Field since 1999 and 2001, respectively. The rule applies to any ferrets that may occupy or eventually be released in northwest Colorado and northeast Utah. Although there is no direct continuity between Coyote Basin or Wolf Creek and the project site (i.e., lesser physical barriers and habitats unoccupied by prairie dog) there is a strong likelihood that ferrets have colonized and successfully breed in Rangely Oil Field. Ferrets are wholly reliant on prairie dogs for food and shelter. Ferret breeding activities begin in early March, with birthing beginning in early May. Young ferrets generally begin to emerge by mid-July. There have been no verified sightings of ferrets, nor any known reproduction occurring in Rangely Oil Field. The project area is broadly encompassed by white-tailed prairie dog habitat. A field visit conducted during February indicated 15 single-entrance burrows and two mound systems would be affected by pad construction. Subsurface disturbance along the proposed flowline would affect seven single-entrance burrows.

Environmental Consequences of the Proposed Action: With regards to burrowing owl, prairie dog and ferret breeding issues, it would be advantageous to schedule earthwork outside the period between 1 April and 15 July. Avoiding this timeframe would provide sufficient time for the rearing, emergence, and dispersal of young from natal burrows and effectively eliminate

the likelihood of adversely affecting these animals' reproductive efforts. Chevron has agreed to complete earthwork for Hagood MCA 14X prior to 1 April and will postpone earthwork for MB Larsen 4X and Beezley 3X22 until 15 July to avoid the reproductive timeframe for prairie dogs, ferrets and burrowing owls.

Until burrowing owls arrive on these breeding ranges in April, there is no credible means of assessing impacts to nest activity. In the event earthwork associated with this project cannot be completed prior to early April, BLM would conduct nest surveys on the affected flowline and pad and conditions of approval would be applied to defer activities that may interfere with successful nest outcomes (under provisions of the Migratory Bird Treaty Act).

This project would have no short or long term influence on prairie dog abundance or distribution by itself or as habitat for black-footed ferret or burrowing owl. It is highly unlikely that any subsurface disturbance associated with this proposed action would intersect a prairie dog burrow system occupied by a ferret.

Environmental Consequences of the No Action Alternative: There would be no potential influence on prairie dogs as habitat for burrowing owl and black-footed ferret in the case of a no action alternative.

Mitigation: Earthwork will be conducted outside the period of 1 April to 15 July to avoid the remote chance of disrupting the reproductive activities of ferrets, burrowing owl, and prairie dogs. All flowlines and rights-of-way involved in this action will be reclaimed and reseeded with the recommended seed blend listed in the proposed action.

Finding on the Public Land Health Standard for Threatened & Endangered species: Public Land Health Standards for those special status species associated with white-tailed prairie dogs, including black-footed ferret and burrowing owl, in the Rangely Oil Field are currently met. As conditioned, this project would have no adverse influence on populations, available extent of suitable habitat, or the reproductive activities of these three species. Thus, there would be no influence on meeting the land health standard. Small incremental gains in perennial grass cover associated with successful reclamation and subsurface tillage associated with flowline installation may be expected to bolster local populations of prairie dogs and potentially benefit individual burrowing owl and black-footed ferret—effects consistent with continued meeting of the Land Health Standards.

WASTES, HAZARDOUS OR SOLID

Affected Environment: There are no known hazardous or other solid wastes on the subject lands. No hazardous materials are known to have been used, stored or disposed of at sites included in the project area.

Environmental Consequences of the Proposed Action: No listed or extremely hazardous materials in excess of threshold quantities are proposed for use in this project. While commercial preparations of fuels and lubricants proposed for use may contain some hazardous constituents,

they would be stored, used and transported in a manner consistent with applicable laws, and the generation of hazardous wastes would not be anticipated. Solid wastes would be properly disposed of.

Environmental Consequences of the No Action Alternative: No hazardous or other solid wastes would be generated under the no-action alternative.

Mitigation: The applicant shall be required to collect and properly dispose of any solid wastes generated by the proposed actions.

WATER QUALITY, SURFACE AND GROUND (includes a finding on Standard 5)

Affected Environment: The well pads are in Stinking Water Gulch which is tributary to the White River below Rangely Colorado. Limited data is available for Stinking Water. Past instantaneous measurements of flow and water quality indicate the water to be high in total dissolved solids.

Environmental Consequences of the Proposed Action: Impacts to water quality from development of the proposed action would be similar to other surface disturbing activities. Some of the impacts would be exposure of soil surface to wind and water erosion, reduced water quality due to erosion of sediment and salt, off of well pads and pipeline rights of ways, and piping or rill erosion where well pad and pipeline disturbance are exposed to climatic elements. These impacts would be short term until re-vegetation has occurred.

Environmental Consequences of the No Action Alternative: Impacts are not anticipated from not allowing the proposed action.

Mitigation: None.

Finding on the Public Land Health Standard for water quality: The proposed action will have no effect on the watershed's ability to meet these water quality standards.

CRITICAL ELEMENTS NOT PRESENT OR NOT AFFECTED:

No ACEC's, flood plains, prime and unique farmlands, Wilderness, or Wild and Scenic Rivers, threatened, endangered or sensitive plants and riparian area exist within the area affected by the proposed action. For threatened, endangered and sensitive plant species Public Land Health Standard is not applicable since neither the proposed nor the no-action alternative would have any influence on populations of, or habitats potentially occupied by, special status plants. Furthermore, this project would have no conceivable potential for influencing riparian attributes addressed in the Standards since there are none. There are also no Native American religious or environmental justice concerns associated with the proposed action.

NON-CRITICAL ELEMENTS

The following elements **must** be addressed due to the involvement of Standards for Public Land Health:

SOILS (includes a finding on Standard 1)

Affected Environment: The soil types in the project area occur from 5,100 to 5,800 feet in elevation. The average annual precipitation in the project area is 8 to 10 inches, the average annual temperature is 42 to 44 degrees F, and the average frost-free period is approximately 105 to 135 days. The proposed action construction would occur within four soil-mapping units inventoried by the Natural Resources Conservation Service (NRCS). Soil units, names, and characteristics are listed in the following table (NRCS, 2004):

Soil Number	Soil Name	Slope	Ecological site	Salinity	Run Off	Erosion Potential	Bedrock
4	Absher loam	3-8%	Alkaline Slopes	4-8	Rapid	Moderate to V high	>60
7	Billings silty clay loam	0-5%	Alkaline Slopes	2-8	Rapid	Moderate to high	>60
16	Chipeta silty clay loam	3-25%	Clayey Saltdesert	4-16	Rapid	High	10-20
18	Chipeta-Killpack silty clay loam	3-15%	Clayey Saltdesert	4-16	Rapid	High	10-20

Environmental Consequences of the Proposed Action: Short-term impacts would be expected from any surface disturbing activity. Impacts from the proposed action would be loss of the protective vegetation cover, possible increase in salt and sedimentation during storm events and soil compaction from equipment. These impacts could continue until successful re-vegetation has occurred. Establishment of perennial vegetation as soon as conditions are allowable would be favorable in controlling erosion problems that may occur.

Environmental Consequences of the No Action Alternative: In the no-action alternative, neither the surface disturbance nor impacts to soils resources would occur.

Mitigation: If it becomes apparent that salts leaching from soils are becoming a problem on the surface (i.e. large salt deposits begin to appear), the operator will notify BLM. BLM will then coordinate with the operator to implement best management practices to mitigate the problem.

Finding on the Public Land Health Standard for upland soils: The proposed action will have no effect on the soils' ability to meet the land health standard.

VEGETATION (includes a finding on Standard 3)

Affected Environment: The proposed action is located within Alkaline Slope and Clayey Saltdesert ecological sites, which are dominated by salt tolerant vegetation. The dominate plant

community for these sites consist of greasewood (*Sarcobatus vermiculatus)* and various saltbrushes such as shadscale (*Atriplex confertifolia)*, Gardner saltbrush (*Atriplex gardneri*), mat saltbush (*Atriplex corrugate),* and fourwing saltbrush (*Atriplex canescens*). Other brushes intermixed in the area are rabbitbrush (*Chrysothamnus viscidiflorus)* and big sagebrush (*Artemisia tridentata)*. The understory of these shrubs is dominated by western wheatgrass (*Agropyron smithii*), Colorado wildrye (*Elymus salinus*), and squirreltail (*Sitanion hystrix*). Cheatgrass (*Bromus tectorum*) is an undesirable, invasive, and alien plant species that is present within the locality of the proposed action.

The soils within the project area are principally a Billings Silty Clay Loam (Alkaline Slope ecological site) and Chipeta Silty Clay Loam (Clayey Saltdesert ecological site). These soil types have a high clay content that is moderate to highly erosive and receives low precipitation with rapid runoff, thus limiting forage production and hampering re-vegetation efforts.

Drought conditions are very prevalent within the Coal Oil Basin area, which has hampered the successful establishment of reclaimed plant species of other projects in this area. Therefore, undesirable and invasive annual plant species (i.e. halogeton (*Halogeton glomeratus),* cheatgrass) have become dominate in portions of previously disturbed areas which provide little resource value and hinder efforts to meet Public Land Health Standards.

Environmental Consequences of the Proposed Action: The proposed action would disturb a mid to low seral class of desert shrub community for a total of 10.58 acres. The short-term soil and vegetation disturbances would be offset in the long-term by reclaiming the disturbed area with a seed mix that is suited for this ecological site. As this area has a component of cheatgrass and halogeton within the plant community, successful re-vegetation efforts would slightly increase desirable plant species within the rangelands.

Previously this area has entailed considerable impacts from oil and gas activities from a network of well pads, pipeline corridors, and access roads, which have resulted in a fragmentation and reduction of available, productive ecological sites.

Environmental Consequences of the No Action Alternative: None

Mitigation: Promptly re-vegetate all disturbed areas associated with the proposed action, including all cut and fill slopes and topsoil stockpiles, with Standard Seed Mix #1 of the White River Resource Area Resource Management Plan (RMP) (B-19, Appendix B). Seeding rates in the RMP are shown as pounds of Pure Live Seed (PLS) per acre and apply to drill seeding. For broadcast application, double the seeding rate and then harrow to insure seed coverage. Applied seed must be certified and free of noxious weeds and seed certification tags must be submitted to the Area Manager within 30 days of seeding. The applicant will be responsible for eradicating cheatgrass, noxious weeds, and/or problem weeds should they occur and/or increase in density as a result of the proposed action. The applicant will use materials and methods as outlined in the RMP or authorized in advance by the White River Field Office Manager.

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Wildlife, Aquatic and Wildlife, Terrestrial)*:* The proposed action would disturb a small

segment of the Alkaline Slope and Clayey Saltdesert ecological sites. Therefore, the action would further fragment these areas to a minimal degree.

Early seral ecological sites associated with the proposed action lacks desirable plant species at an appreciable density and frequency level, thus are not meeting standards. This is due to the prevalence of cheatgrass and halogeton within the vegetative understory. A slight positive benefit would be received through a successful re-vegetation effort, thus increasing preferred plant species within this low producing rangeland. Mid seral ecological sites at the proposed action locality have acceptable components within the plant community and are meeting standards.

WILDLIFE, AQUATIC (includes a finding on Standard 3)

Affected Environment: There are no aquatic habitats conceivably affected by this action. The White River, representing the nearest aquatic habitat, is separated from the project area by about eight miles of ephemeral channel.

Environmental Consequences of the Proposed Action: None

Environmental Consequences of the No Action Alternative: None

Mitigation: None

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Vegetation and Wildlife, Terrestrial): This project would have no conceivable influence on aquatic wildlife or habitat conditions addressed in the Standards.

WILDLIFE, TERRESTRIAL (includes a finding on Standard 3)

Affected Environment: This heavily developed portion of Coal Oil Basin is inhabited year-round by a small resident herd of pronghorn. These animals are acclimated to routine oil and gas production activities. A number of raptors forage opportunistically during the winter in Coal Oil Basin, the most common being rough-legged hawks, red-tailed hawks, and golden eagle. The project area and the surrounding area provide no special or unique habitat features for nesting raptors.

Environmental Consequences of the Proposed Action: This project, as mitigated, would have no conceivable adverse consequences on big game distribution or habitat quality. Right-of-way reclamation normally provides herbaceous forage opportunity in excess of that previously existing and in many cases will replace cheatgrass and halogeton-dominated understories almost immediately after construction is complete. While surface disturbance would cause a longer-term reduction in woody forage supply, the incremental shrub reductions are wholly insignificant with respect to the available forage base. Standard reclamation procedures would provide the opportunity to increase the perennial grass component on these corridors in the longer term,

increasing ground cover and seed production and prolonging the availability of green herbaceous forage for resident big and non-game animals.

Environmental Consequences of the No Action Alternative: There would be no potential influence on big game distribution or habitat quality in the case of a no action alternative.

Mitigation: See mitigation for T&E Species section above.

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Vegetation and Wildlife, Aquatic): Much of the ground cover within the Rangely Field is dominated by annual weeds. Although these sites in and of themselves cannot be considered meeting the definition of the land health standard, the majority of the shrubland communities comprising this landscape likely retain sufficient character to support viable populations of resident wildlife, although likely at populations reduced from potential. Subsequent reclamation offers an opportunity to reestablish herbaceous forage and cover conditions (i.e., redevelopment of a perennial bunchgrass component) more consistent with the proper functioning of these arid salt desert communities as wildlife habitat, thus better opportunity to meet the land health standard.

OTHER NON-CRITICAL ELEMENTS: For the following elements, only those brought forward for analysis will be addressed further.

Non-Critical Element	NA or Not Present	Applicable or Present, No Impact	Applicable & Present and Brought Forward for Analysis
Access and Transportation		X	
Cadastral Survey	X		
Fire Management	X		
Forest Management	X		
Geology and Minerals			X
Hydrology/Water Rights	X		
Law Enforcement		X	
Noise		X	
Paleontology			X
Rangeland Management			X
Realty Authorizations	X		
Recreation		X	
Socio-Economics		X	
Visual Resources			X
Wild Horses	X		

GEOLOGY AND MINERALS

Affected Environment: The surface geologic formation of the wells is Mancos and Chevron's targeted zone is in the Weber. During drilling potential water, oil and gas zones will

be encountered from surface to the targeted zone. The proposed re-entry well would be re-entry of a well that was drilled and completed in 1947 and since abandoned. The directional wells would be new wells. All of the wells are located in the northwestern corner of the Rangely Field, part of the Weber Sand Unit which has been in effect since 1957.

Environmental Consequences of the Proposed Action: The cementing procedure of the proposed actions isolates the formations and will prevent the migration of gas, water, and oil between formations. Development of these wells will deplete the hydrocarbon resources in the targeted formation.

Environmental Consequences of the No Action Alternative: None

Mitigation: The Re-entry well must have a cement bond log run on the well bore casing to verify quality and extent of existing cement.

PALEONTOLOGY

Affected Environment: Beezley #3X22 well pad, access and well tie pipelines: The proposed well pad location and access road appear to be located in an area mapped as the Mesa Verde Formation (Tweto 1979) which the BLM has classified as a Condition I formation, meaning it is known to produce scientifically important fossil resources.

For MB Larson A #4X well pad, access road and well tie pipelines and Hagood M.C. A 14X well pad, access road and well tie pipelines: the proposed actions appear to be located in an area mapped as the Sego Sandstone (Tweto 1979) which is considered to be a part of the larger Mesa Verde Group. There are not any good dates on the fossil potential of the Sego Sandstone in the Raven Ridge area therefore; the formation is classified as a Condition II formation meaning it is not known what the fossil potential for the formation is not well understood.

Environmental Consequences of the Proposed Action: For all well pads, access and well tie pipelines: If it becomes necessary to excavate into the underlying bedrock formation to level the well pad, bury the pipelines or excavate the reserve/blooie pit there is a potential to impact scientifically important fossil resources.

Environmental Consequences of the No Action Alternative: There would be no impacts to fossil resources under the No Action Alternative.

Mitigation: Beezley #3X22 well pads, access roads and pipelines: any exposed rock outcrops shall be inventoried for fossil resources by an approved paleontologist with a report detailing the results of the inventory and any recommended mitigation shall be submitted to the BLM prior to the initiation of construction. 2. If it becomes necessary to excavate into the underlying bedrock to level the pad, bury the pipelines or excavate the reserve/blooie pit then a paleontological monitor shall be present.

MB Larson A #4x and Hagood M.C A 14X well pads, access roads and pipelines: if it becomes necessary to excavate into the underlying bedrock formation to level the well pad, bury the pipelines or excavate the reserve/blooie pit the excavations shall be spot checked for the presence of fossil resources.

RANGELAND MANAGEMENT

Affected Environment: The proposed action is located in the Artesia Allotment (06308), which is authorized for sheep use by Morapos Sheep Company. Grazing use by sheep in the allotment can be authorized from December 1st through April 20th.

The soils within the project area are principally a Billings Silty Clay Loam (Alkaline Slope ecological site) and Chipeta Silty Clay Loam (Clayey Saltdesert ecological site), which are dominated by a salt tolerant desert shrub and grass community. These brush/grass communities are utilized by sheep for meeting forage requirements, particularly during winter months. These soil types have a high clay content that are moderate to highly erosive and receives low precipitation with rapid runoff, thus limiting forage production and hampering re-vegetation efforts.

Drought conditions are very prevalent within the Coal Oil Basin area, which has hampered the successful establishment of reclaimed plant species of other projects in this area. Therefore, undesirable and invasive annual plant species (i.e. halogeton, cheatgrass) have become dominate in a portion of these disturbed areas which provide little forage value for livestock.

Environmental Consequences of the Proposed Action: The individual proposed action would have minimal impacts on the authorized grazing use because the amount of new surface disturbance (10.58 acres) is nominal in regards to the scale of the allotment (43,347 total acres). A portion of the disturbance will be re-vegetated. However, previously this allotment has entailed considerable impacts from oil and gas activities, which have resulted in a reduction and fragmentation of available rangelands and in a loss of forage for grazing use.

A portion of the short-term soil and vegetation disturbances would be offset in the long-term by reclaiming the disturbed area with a seed mix that is suited for this ecological site. As this area has a component of cheatgrass and halogeton within the plant community, successful re-vegetation efforts would slightly increase desirable forage species within the rangelands.

If the proposed action was authorized during the grazing period, it would have some limited impacts while sheep are grazing. This is due to the increased activity associated with the development of the proposed action and temporary decrease in rangelands available for grazing. Impacts to livestock grazing may include such influences as a modification in sheep distribution, reduction in available forage, and impediments to livestock grazing and movement.

Overall, this individual proposed action would have no significant direct impact on the authorized Animal Unit Months (AUMs) in the allotments. A slight positive benefit would be received through a successful re-vegetation effort, thus increasing preferred forage plants within

this mid to low producing rangeland. However, the cumulative impacts from past, present, and possible future oil and gas activities may have a long-term effect on the native range's carrying capacity, thus influencing the authorized AUMs. This possible affect would be determined during the grazing permit renewal process.

Environmental Consequences of the No Action Alternative: None

Mitigation: Any livestock control facilities and/or rangeland improvements impacted during this operation will be replaced or repaired to their prior condition.

VISUAL RESOURCES

Affected Environment: The proposed actions would be located in an area with a VRM IV classification. The objective of this class is to provide for management activities which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements.

Environmental Consequences of the Proposed Action: The proposed actions would be located on terrain with small, sparse vegetation. A casual observer traveling along SH 64 would be able to view the proposed action for a brief period of time, but the proposed action would not dominate the view. By painting all production equipment the color specified in the APD, the impact of the proposed action would be minimized and the level of change to the characteristic landscape would be moderate, and the objectives of the VRM IV classification would be retained.

Environmental Consequences of the No Action Alternative: There would be no additional impacts.

Mitigation: None

CUMULATIVE IMPACTS SUMMARY: Cumulative impacts from oil and gas development were analyzed in the White River Resource Area Proposed Resource Management Plan/Final Environmental Impact Statement (PRMP/FEIS) completed in June 1996. Current development, including the proposed action, has not exceeded the cumulative impacts from the foreseeable development analyzed in the PRMP/FEIS.

REFERENCES CITED:

Larralde, Signa

1981 Cultural Resource Inventory of a Sample of BLM Lands in the Rangely Oil Field, Rio Blanco County, Northwestern Colorado. Nickens and Associates, Montrose, Colorado.

Tweto, Ogden
1979 Geologic Map of Colorado. United States Geologic Survey, Department of the Interior, Reston, Virginia.

PERSONS / AGENCIES CONSULTED: None

INTERDISCIPLINARY REVIEW:

Name	Title	Area of Responsibility
Caroline Hollowed	Planning and Environmental Coordinator	Air Quality
Tamara Meagley	Natural Resource Specialist	Areas of Critical Environmental Concern
Tamara Meagley	Natural Resource Specialist	Threatened and Endangered Plant Species
Mike Selle	Archeologist	Cultural Resources Paleontological Resources
Jed Carling	Rangeland Specialist	Invasive, Non-Native Species
Lisa Belmonte	Wildlife Biologist	Migratory Birds
Lisa Belmonte	Wildlife Biologist	Threatened, Endangered and Sensitive Animal Species, Wildlife
Bo Brown	Hazmat Collateral	Wastes, Hazardous or Solid
Caroline Hollowed	Planning and Environmental Coordinator	Water Quality, Surface and Ground Hydrology and Water Rights
Lisa Belmonte	Wildlife Biologist	Wetlands and Riparian Zones
Chris Ham	Outdoor Recreation Planner	Wilderness
Caroline Hollowed	Planning and Environmental Coordinator	Soils
Jed Carling	Rangeland Specialist	Vegetation
Lisa Belmonte	Wildlife Biologist	Wildlife Terrestrial and Aquatic
Chris Ham	Outdoor Recreation Planner	Access and Transportation
Ken Holsinger	Natural Resource Specialist	Fire Management
Robert Fowler	Forester	Forest Management
Caroline Hollowed	Planning and Environmental Coordinator	Geology and Minerals
Jed Carling	Rangeland Specialist	Rangeland Management
Linda Jones	Realty Specialist	Realty Authorizations
Chris Ham	Outdoor Recreation Planner	Recreation
Keith Whitaker	Natural Resource Specialist	Visual Resources
Valerie Dobrich	Natural Resource Specialist	Wild Horses

Finding of No Significant Impact/Decision Record (FONSI/DR)

CO-110-2005-068-EA

FINDING OF NO SIGNIFICANT IMPACT (FONSI)/RATIONALE: The environmental assessment and analyzing the environmental effects of the proposed action have been reviewed. The approved mitigation measures (listed below) result in a Finding of No Significant Impact on the human environment. Therefore, an environmental impact statement is not necessary to further analyze the environmental effects of the proposed action.

DECISION/RATIONALE: It is my decision to approve development of the wells and flowlines as described in the proposed action, with the addition of the mitigation measures listed below. This development, with mitigation, is consistent with the decisions in the White River ROD/RMP, and environmental impacts will be minimal.

MITIGATION MEASURES:

For the proposed action: 1. The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:

- whether the materials appear eligible for the National Register of Historic Places
- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary)
- a timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

2. Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the AO, by telephone,

with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.

3. The applicant will be responsible for eradicating cheatgrass, noxious weeds, and/or problem weeds should they occur and/or increase in density as a result of the proposed action. The applicant will use materials and methods as outlined in the White River ROD/RMP and/or authorized in advance by the White River Field Office Manager. Application of herbicides must be under field supervision of an EPA certified pesticide applicator. Herbicides must be registered by the EPA and application proposals must be approved by the BLM.

4. To avoid negative impacts on nesting migratory birds, construction will take place prior to 1 April (in the case of Hagood MCA 14X) or after 15 July (in the case of MB Larsen A4X and Beezley 3X22).

5. Earthwork will be conducted outside the period of 1 April to 15 July to avoid the remote chance of disrupting the reproductive activities of ferrets, burrowing owl, and prairie dogs. All flowlines and rights-of-way involved in this action will be reclaimed and reseeded with the recommended seed blend listed in the proposed action.

6. The applicant shall be required to collect and properly dispose of any solid wastes generated by the proposed actions.

7. Promptly re-vegetate all disturbed areas associated with the proposed action, including all cut and fill slopes and topsoil stockpiles, with Standard Seed Mix #1 of the White River ROD/RMP. Seeding rates are shown as pounds of Pure Live Seed (PLS) per acre and apply to drill seeding. For broadcast application, double the seeding rate and then harrow to insure seed coverage. Applied seed must be certified and free of noxious weeds and seed certification tags must be submitted to the Field Manager within 30 days of seeding.

Seed Mix #1

Species (Variety)	Lbs PLS/ Acre	Range sites
Siberian wheatgrass (P27) Russian wildrye (Bozoisky) Crested wheatgrass (Hycrest)	3 2 3	Alkaline Uplands, Badlands, Clayey 7"-9", Clayey Salt Desert, Cold Desert Breaks, Cold Desert Overflow, Gravelly 7"-9", Limey Cold Desert, Loamy 7"-9", Loamy Cold Desert, Loamy Salt Desert, Saline Lowland, Salt Desert Breaks, Salt Flats, Salt Meadow Sands 7"-9", Sandy 7"-9", Sandy Cold Desert, Sandy Salt Desert, Shale 7"-9", Shale/Sands Complex, Shallow Loamy, Shallow Sandy, Shallow Slopes, Silty Salt Desert, Silty Swale, Steep Slopes

8. The Re-entry well must have a cement bond log run on the well bore casing to verify quality and extent of existing cement.

9. Beezley #3X22 well pads, access roads and pipelines: any exposed rock outcrops shall be inventoried for fossil resources by an approved paleontologist with a report detailing the results of the inventory and any recommended mitigation shall be submitted to the BLM prior to the

initiation of construction. 2. If it becomes necessary to excavate into the underlying bedrock to level the pad, bury the pipelines or excavate the reserve/blooie pit then a paleontological monitor shall be present.

10. MB Larson A #4x and Hagood M.C A 14X well pads, access roads and pipelines: if it becomes necessary to excavate into the underlying bedrock formation to level the well pad, bury the pipelines or excavate the reserve/blooie pit the excavations shall be spot checked for the presence of fossil resources.

11. Any livestock control facilities and/or rangeland improvements impacted during this operation will be replaced or repaired to their prior condition.

NAME OF PREPARER: Tamara Meagley 3-3-05

NAME OF ENVIRONMENTAL COORDINATOR: Caroline Hollowed

SIGNATURE OF AUTHORIZED OFFICIAL: Kent C. Walter
Field Manager

DATE SIGNED: 03/04/05

ATTACHMENTS: Location map of the proposed action.

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Location of Proposed Action
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